



THERMAFIBER® INDUSTRIAL FELT MINERAL WOOL INSULATION

Thermafiber® Industrial Felt is an economical mineral fiber board for thermal, fire protection, and sound control applications. The fine-fiber, semi-rigid composition makes industrial felt easy to handle. It is available in actual densities from 2.5 to 12 lb./cu. ft. and is suitable for temperatures up to 1,200°F (649°C). The wide range of densities make Thermafiber® Industrial Felt adaptable for industrial applications in a broad scope of low- or high-temperature applications. On initial startup only, heat rise should not exceed 15°F per minute to allow binder to dissipate without excessive temperature rise. Thermal conductivity is not affected.

Features

- Used in continuous service up to 1,200°F (649°C)
- Excellent sound and noise absorption
- Easily fabricated and installed
- Noncorrosive
- Wide range of densities and dimensions available

Standards, Code Compliance

ASTM C612, Mineral Fiber Block & Board, Thermal Insulation:

- Industrial Felt 25: Types I, II, III, IVA
- Industrial Felt 30: Types I, II, III, IVA
- Industrial Felt 35: Types I, II, III, IVA
- Industrial Felt 40: Types I, II, III, IVA
- Industrial Felt 45: Types I, II, III, IVA, IVB
- Industrial Felt 50: Types I, II, III, IVA, IVB
- Industrial Felt 60: Types I, II, III, IVA, IVB
- Industrial Felt 65: Types I, II, III, IVA, IVB
- Industrial Felt 70: Types I, II, III, IVA, IVB
- Industrial Felt 80: Types I, II, III, IVA, IVB
- Industrial Felt 90: Types I, II, III, IVA, IVB
- Industrial Felt 95: Types I, II, III, IVA, IVB
- Industrial Felt 100: Types I, II, III, IVA, IVB
- Industrial Felt 120: Types I, II, III, IVA, IVB
- Doesn't contain the fire retardant decabrominated diphenyl ether (decaBDE)

Thermal Performance

Maximum Hot Surface Temperature One Side (enclosed panel) per ASTM C411

DENSITY	MAXIMUM °F
2.5 pcf	400
3.0 pcf	500
3.5 pcf	600
4.0 pcf–10.0 pcf	1,200
12.0 pcf	1,350

Physical Properties

PROPERTY	TEST METHOD	VALUE	
Density (Actual)	ASTM C303	Industrial Felt 25	2.5 pcf
		Industrial Felt 30	3.0 pcf
		Industrial Felt 35	3.5 pcf
		Industrial Felt 40	4.0 pcf
		Industrial Felt 45	4.5 pcf
		Industrial Felt 50	5.0 pcf
		Industrial Felt 60	6.0 pcf
		Industrial Felt 65	6.5 pcf
		Industrial Felt 70	7.0 pcf
		Industrial Felt 80	8.0 pcf
		Industrial Felt 90	9.0 pcf
Industrial Felt 95	9.5 pcf		
Industrial Felt 100	10.0 pcf		
Industrial Felt 120	12.0 pcf		
Maximum Use Temperature ¹	ASTM C411	Up to 1,200°F (649°C)	
Linear Shrinkage	ASTM C356	<2.0% at 1,200°F (649°C)	
Water Vapor Sorption	ASTM C1104	<3.0% by weight at 120°F (49°C), 95% R.H.	
Fungi Resistance	ASTM C1338	Pass – No growth	
CORROSION RESISTANCE	TEST METHOD	VALUE	
Corrosion to Copper, Aluminum, and Steel	ASTM C665	Pass	
Corrosion to Steel	ASTM C1617	Pass	
Stress Corrosion Evaluation on external stress corrosion cracking tendency of austenitic stainless steel ²	ASTM C795 and ASTM C692	Pass	
Chemical Analysis for Cl ⁻ , Fl ⁻ , Na ⁺ , SiO ₃ ²⁻	ASTM C795 and ASTM C871	Results fall within acceptability limits	
Nonmetallic Thermal Insulation ²	NRC 1.36	Complies	
FIRE	TEST METHOD	VALUE	
Noncombustibility	ASTM E136 and CAN/ULC S114	Pass: Noncombustible as defined per NFPA 220	
Surface Burning Characteristics ³	UL 723, ASTM E84, and CAN/ULC S102	Flame Spread Index 0 Smoke Developed 0	

Thermal Conductivity

PRODUCT	TESTED TO ASTM C177 K-VALUE – (BTU · IN/HR · FT ² · °F)							
	75°	100°	200°	300°	400°	500°	600°	700°
Industrial Felt 3.5	0.24	0.26	0.34	0.42	0.52	0.63	0.76	0.92
Industrial Felt 4.5	0.22	0.24	0.29	0.35	0.42	0.50	0.59	0.71
Industrial Felt 6	0.23	0.24	0.29	0.35	0.42	0.50	0.59	0.71
Industrial Felt 8	0.23	0.24	0.28	0.33	0.38	0.44	0.51	0.60
Industrial Felt 10	0.24	0.25	0.29	0.33	0.38	0.44	0.52	0.60
Industrial Felt 11	0.24	0.25	0.28	0.32	0.36	0.41	0.46	0.52

Acoustical Performance

DENSITY	THICKNESS	TESTED TO ASTM C423 & E795 SOUND ABSORPTION COEFFICIENTS AT OCTAVE BAND CENTER FREQUENCIES (Hz)						
		125	250	500	1000	2000	4000	NRC
4 pcf	1"	0.06	0.24	0.58	0.81	0.85	0.90	0.60
6 pcf	1"	0.07	0.24	0.62	0.87	0.91	0.91	0.65
8 pcf	1"	0.10	0.37	0.82	0.97	0.91	0.89	0.75
12 pcf	1"	0.09	0.31	0.77	0.96	0.99	0.94	0.75
4 pcf	2"	0.33	0.71	1.13	1.15	1.08	1.09	1.00
6 pcf	2"	0.36	0.79	1.15	1.04	1.01	1.04	1.00
8 pcf	2"	0.35	0.84	1.08	1.04	0.96	0.93	1.00
12 pcf	2"	0.40	0.79	0.78	0.94	0.94	0.87	0.85
2.5 pcf	4"	0.83	1.19	1.27	1.12	1.12	1.13	1.20
4 pcf	4"	1.01	1.26	1.23	1.13	1.11	1.09	1.20
6 pcf	4"	1.15	1.17	1.18	1.03	1.06	1.08	1.10

Availability

For product availability, please contact your local Owens Corning area sales manager.

Industrial Felt is available with white foil and BGV facings by request for an additional charge.

PRODUCT	THICKNESS ⁴	WIDTHS ⁵	LENGTHS ⁵	DENSITY
Industrial Felt	1"–8"	24", 36", 48"	48", 60", 72"	< 7 pcf
Industrial Felt	1.5"–5"	24", 36", 48"	48", 60", 72"	> 7 pcf
Tolerances	+¼", -⅙"	±⅙"	+¾", -¼"	

⁴ Thicknesses are available in ½-inch increments.

⁵ Custom sizes are available upon request.

Installation

Thermafiber Inc. recommends mechanical attachment of Industrial Felt products unless in an enclosed panel.

See Owens Corning publication "Industrial Board Products Installation Instructions" (Pub. No. 10024272) for more information.

Please contact your sales representative or GETTECH@owenscorning.com for further questions.

Certifications and Sustainable Features

- Verified by ICC-ES to contain a minimum of 70% recycled content. See ICC-ES Evaluation Report VAR-1025 at icc-es.org.
- Environmental Product Declaration (EPD) has been certified by UL Environment. For more information, visit ul.com/epd.
- Material Health Certificate from Cradle to Cradle Products Innovation Institute. For more information, visit c2ccertified.org.



Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at www.owenscorning.com.

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Notes

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via <http://sds.owenscorning.com>.

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